

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 09/388,826
Filing Date September 1, 1999
Inventor Weimin (Michael) Li et al.
Assignee Micron Technology, Inc.
Group Art Unit 2813
Examiner E. Kielin
Attorney's Docket No. MI22-1208
Title: Low k Interlevel Dielectric Layer Fabrication Methods

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

References -See Attached Form PTO-1449

In compliance with 37 C.F.R. §§ 1.56, 1.97 and 1.98, your attention is directed to the references which are listed on the attached Form PTO-1449, copies of which are attached. No admission is made regarding whether all the submitted references are prior art.

Citation of the referenced art is respectfully requested.

This Supplemental Information Disclosure Statement is being filed after the filing of the Request for Continued Examination (RCE) Application and before receipt of the first Office Action. Therefore, no fee is believed to be required. However, in the event that a fee is required for filing this Supplemental Information Disclosure Statement, please charge the fee specified under 37 C.F.R. § 1.17(p) to Deposit Account No. 23-0925. Please credit Deposit Account No. 23-0925 with any overpayment of the above fee.

Respectfully submitted,

Dated: Apr 26, 2002By: 

Frederick M. Fliegel, Ph.D.
Reg. No. 36,138

EL 844051780

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The attached form PTO-1449 is submitted in compliance with 37 CFR § 1.56.

Copies of the cited prior art references are attached. No admission is made regarding whether the submitted references are prior art.

Citation of these references is respectfully requested.

Respectfully submitted,

Date:

Sep 25, 2001

By:



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200 Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI23-1208		SERIAL NO. 09/388,826	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Weimin Li et al.		GROUP 2913	
				FILING DATE September 1, 1999			
U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,883,011	4/1999	Lin et al			
	AB	4,895,683	2/1989	Magdo et al			
	AC	5,374,367	2/1999	Dobson			
	AD	5,358,380	1/1999	Dobson et al			
	AE	5,219,613	6/1993	Fabry et al			
	AF	5,270,267	12/1993	Quellet			
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	AL	5,667,015	9/1997	Harestad et al			
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	AU	5,061,509	10/1991	Naito et al			
	AV	4,600,671	7/1986	Saitoh et al			

EXAMINER	DATE CONSIDERED
*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Form PTO-1419		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-1208	SERIAL NO. 09/388,326	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Weimin Li et al.		
				FILING DATE September 1, 1999	GROUP 2813	
U.S. PATENT DOCUMENTS						
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	BA 5,753,320	5/1998	Mikoshiba et al.			
	BB 5,356,515	10/1994	Tahara et al.			
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	BE 5,741,721	04/21/98	Stevens			
	BF 5,034,348	07/23/91	Hartswick et al.			
	BG 5,472,829	12/05/95	Ogawa			
	BH 5,641,607	06/24/97	Ogawa et al.			
	BI 5,648,202	07/15/97	Ogawa et al.			
	BJ 5,670,297	09/23/97	Ogawa et al.			
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	BM 5,831,321	11/03/98	Nagayama			
	BN 5,591,566	01/07/97	Ogawa			
	BO 6,008,124	12/28/99	Sekiguchi et al.			
	BP 5,340,621	08/23/94	Matsumoto et al.			
	BQ 5,600,165	02/04/97	Tsukamoto et al.			
	BR 5,872,385	02/16/99	Taft et al.			
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	BT 5,963,324	10/19/99	Cheung et al.			
	BU 6,020,243	02/01/00	Wallace et al.			
	BV 5,472,829	12/1995	Ogawa et al.			
EXAMINER			DATE CONSIDERED			
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Sheet 3 of 5

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. M122-1208		SERIAL NO. 09388326	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)					APPLICANT Weimin Li et al.			
					FILING DATE September 1, 1999		GROUP 2813	
U.S. PATENT DOCUMENTS								
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	CA	4,474,975	10-84	Clemons et al.				
	CB	5,962,391	10-99	Hayase et al.				
	CC	6,140,124	10-00	Akram				
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	CI	5,786,039	7-98	Brouquet				
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	CY	5,981,368	11-99	Gardner				
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	C2	6,235,591	5-01	Balasubramanian				
	C3	6,193,144 B1	3-01	Pan				
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				FILING DATE September 1, 1999	
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EF		K. Beckmann et al., "Sub-micron Gap Fill and In-Situ Planarization using Flowfill™ Technology", October 1995, pp. 1-7			
EH		A. Kiermaier et al., "Planarization for Sub-Micron Devices Utilizing a New Chemistry", Electrochem, February 1986, 2 pages			
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EJ		ARTICLE: Bencher, C. et al., "Dielectric antireflective coatings for DUV lithography", Solid State Technology (March 1997), pp.109-114.			
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EL		Ralls, Kenneth M., "Introduction to Materials Science and Engineering", John Wiley & Sons, © 1976, pp. 312-313			
EM		Ravi K. Laxman, "Synthesizing Low-k CVD Materials for Fab Use", Semiconductor International, Nov. 2000, 10 pps.			
EN		Anonymous, "New gas helps make faster ICs", Machine Design Cleveland, © Penton Media, Inc., November 4, 1999, pp. 113			
EO		Lobada et al., "Using Trimethylsilane to Improve Safety Throughput and Versatility in PECVD Processes", 4th International Symposium on Silicon Nitride and Silicon Dioxide Thin Insulating Films, The Electrochemical Society, Abstract No. 358, p. 454, May 1997.			
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EW		Matsuura, M. et al., "Highly Reliable Self-Planarizing Low-k Intermetal Dielectric for Sub-quarter Micron Interconnects", IEEE 1997, pp. 783-788			
EX		Moriz, O. et al., "Kinetics and Mechanism of the Reactions of ... J Phys. Chem 1991, 4393-4400.			
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